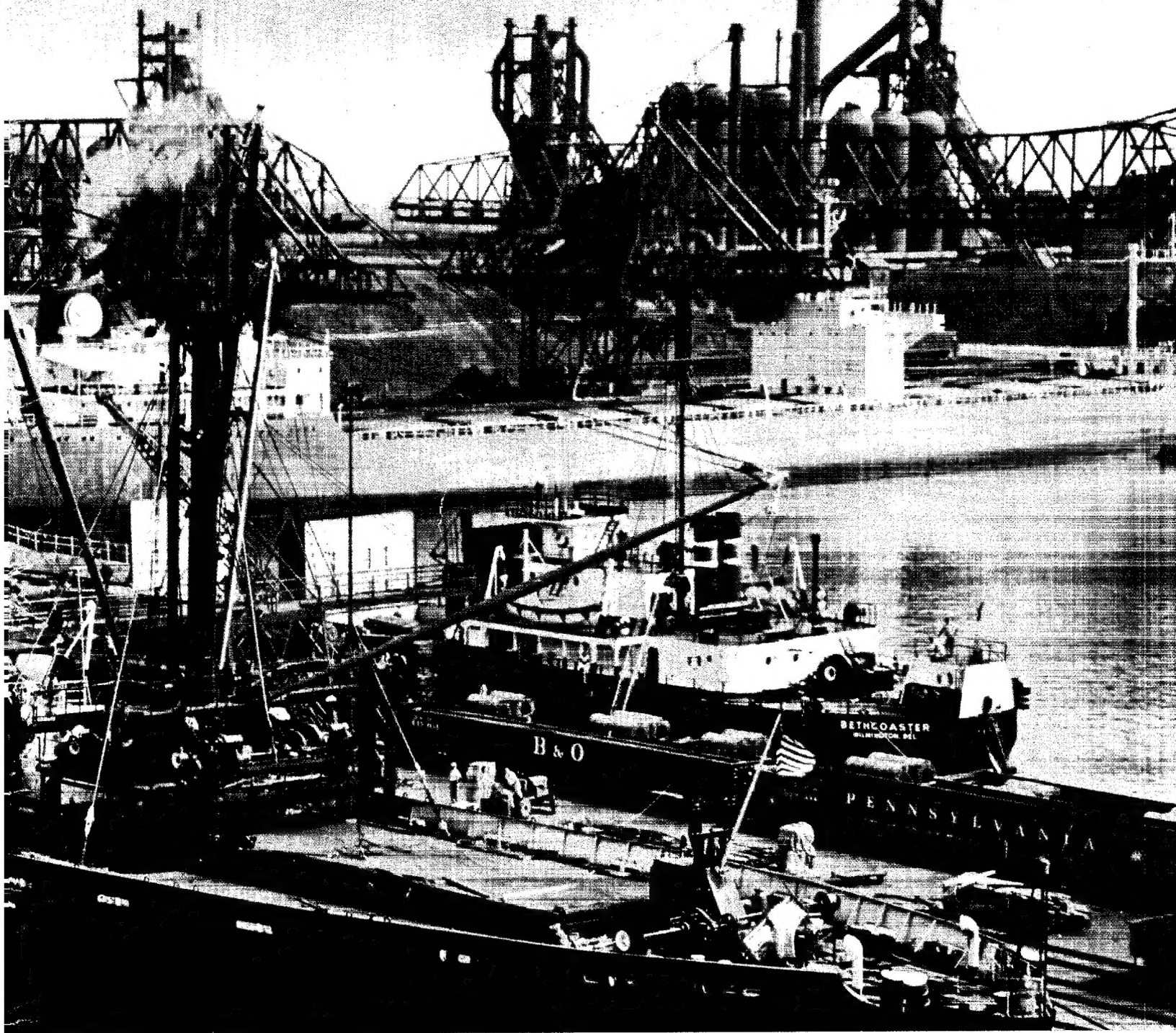


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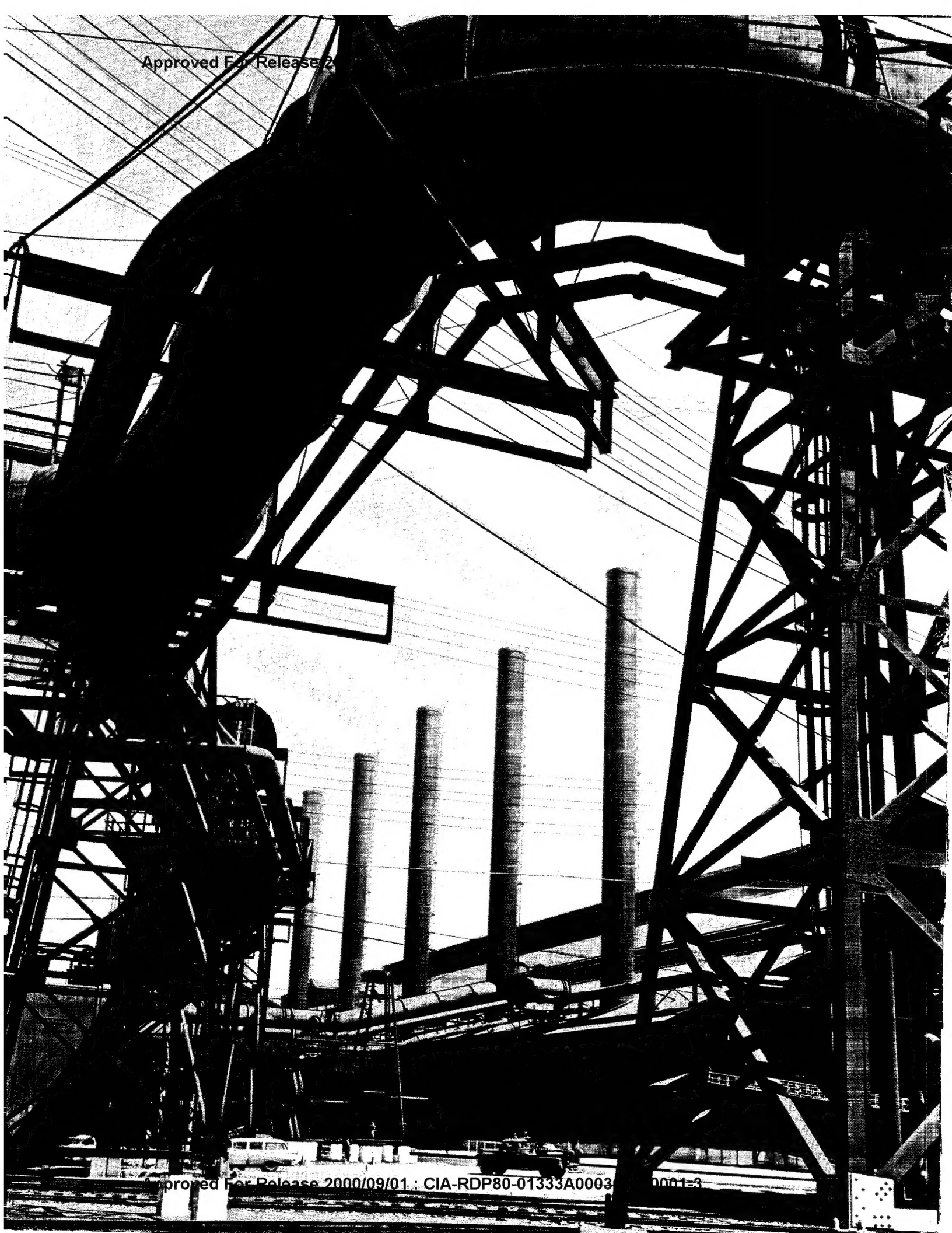


Sparrows Point Plant



BETHLEHEM STEEL COMPANY

Approved For Release 2000/09/01 : CIA-RDP80-01333A0003-3



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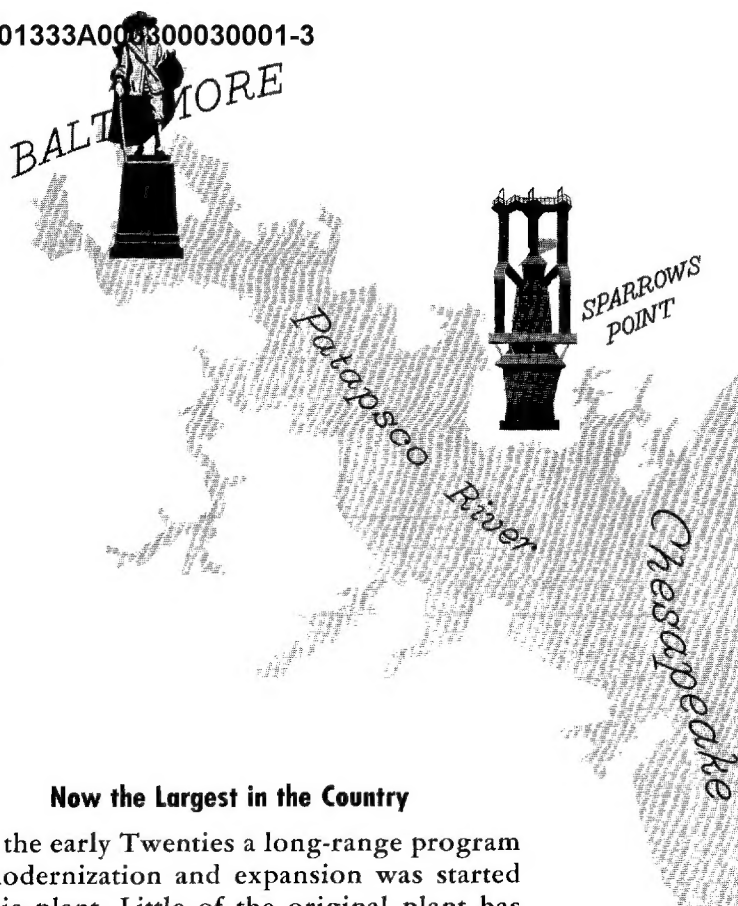
The steel plant that grew on tidewater

The Sparrows Point Plant is located 12 miles from Baltimore, on the Patapsco River near where it flows into the Chesapeake Bay. This location has had a favorable influence on the plant's development. Incoming ships, carrying iron ore from overseas, dock directly at the plant. Finished steel is shipped from its docks to points on the Atlantic, Gulf, and Pacific Coasts of this country, and to ports all over the world. Steel from Sparrows Point can be delivered quickly by railroad, water, or highway to the great industrial areas of the Eastern Seaboard.

Lord Baltimore to Thomas Sparrow

The land on which the Sparrows Point Plant stands was deeded by Lord Baltimore to Thomas Sparrow in 1652. Some 230 years later the Pennsylvania Steel Company, with its plant at Steelton, Pa., selected Sparrows Point as the ideal site for a blast furnace to use foreign ores in making the pig iron needed at Steelton for the production of steel rails. Before the original Sparrows Point Plant could be completed this plan had been modified, so that Sparrows Point became a steel producer in its own right. The plant poured its first pig iron in 1889 and two years later made its first heat of Bessemer steel, which was rolled into rails.

As World War I spread across Europe, Bethlehem Steel Company became one of the chief suppliers of war materials to the Allies. To meet the mounting demands, Bethlehem had to increase its capacity, and in 1916 acquired the Pennsylvania Steel Company. This single move, giving Bethlehem the added facilities of the Sparrows Point and Steelton plants, nearly doubled its steelmaking capacity.



Now the Largest in the Country

In the early Twenties a long-range program of modernization and expansion was started at this plant. Little of the original plant has survived. The range of products has been broadened, and modern automatic and continuous equipment has replaced the older-type mills. Sparrows Point now has an ingot capacity over twelve times as great as when Bethlehem acquired the plant, and in 1958 became the largest steel plant in the country.

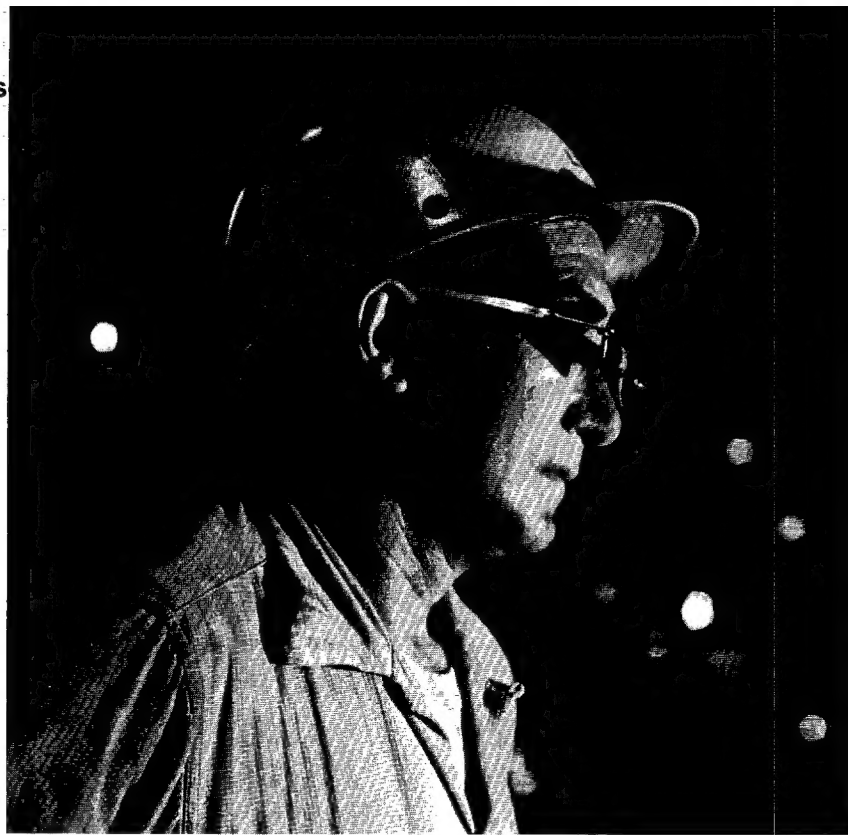
One of Bethlehem's major shipyards is located at Sparrows Point. This is one of the few places in the world where a steel plant and shipyard are adjacent. The Sparrows Point yard builds cargo and passenger-cargo vessels of all types, utilizing many of the products of the steel plant. Another Bethlehem shipyard, engaging primarily in repairs and conversion, is located on the Key Highway, in Baltimore.

A "shipyard in reverse," the Patapsco Scrap Corporation, is also operated by Bethlehem at Fairfield, in the city of Baltimore. Here, on ways which turned out ships in World War II, old vessels are dismantled to supply scrap for the steelmaking furnaces at Sparrows Point.

In times of normal operation the Sparrows Point Plant employs a force of 30,000 people. Approximately 40,000 are engaged in all of the Bethlehem activities in the Baltimore area.

(Opposite page) Towering into the sky are the stacks of open-hearth furnaces which produce molten steel.

(Front cover) Ships in the foreground load finished steel, while in the background a large vessel discharges its iron-ore cargo.



Men, mills, and furnaces

The Bethlehem Sparrows Point Plant is the largest steel plant in the country. Its furnaces and mills have a capacity of 8,200,000 ingot tons of steel per year. That's a potential of approximately 950 tons every hour of every day!

The multitudinous operations that take place within its more than 4,000 acres seem highly complex at first glance, yet they follow an orderly sequence from ore to finished steel. The job of every man and machine, no matter how far removed from steel-making it may seem, is an essential part of a huge and carefully planned operation.

Steel for Many Industries

The steel-consuming industries to which Sparrows Point furnishes steel products cover the field all the way from small fabricating shops to huge enterprises in industry, construction, and transportation. Steel made at Sparrows Point is used in the countless products and activities that help make American standards of living the world's highest.

Millions of tons of steel sheets are produced here each year for the automotive, railway, furniture, building-construction, and miscellaneous manufacturing industries.

Manufacturers of "tin" cans, bottle caps, toys, and mass-produced articles in almost endless variety take tremendous tonnages of Sparrows Point tinplate and blackplate.

Shipbuilding, fabricated steel construction, railways, and petroleum are among the heavy industries that require the steel plates and flanged heads made here.

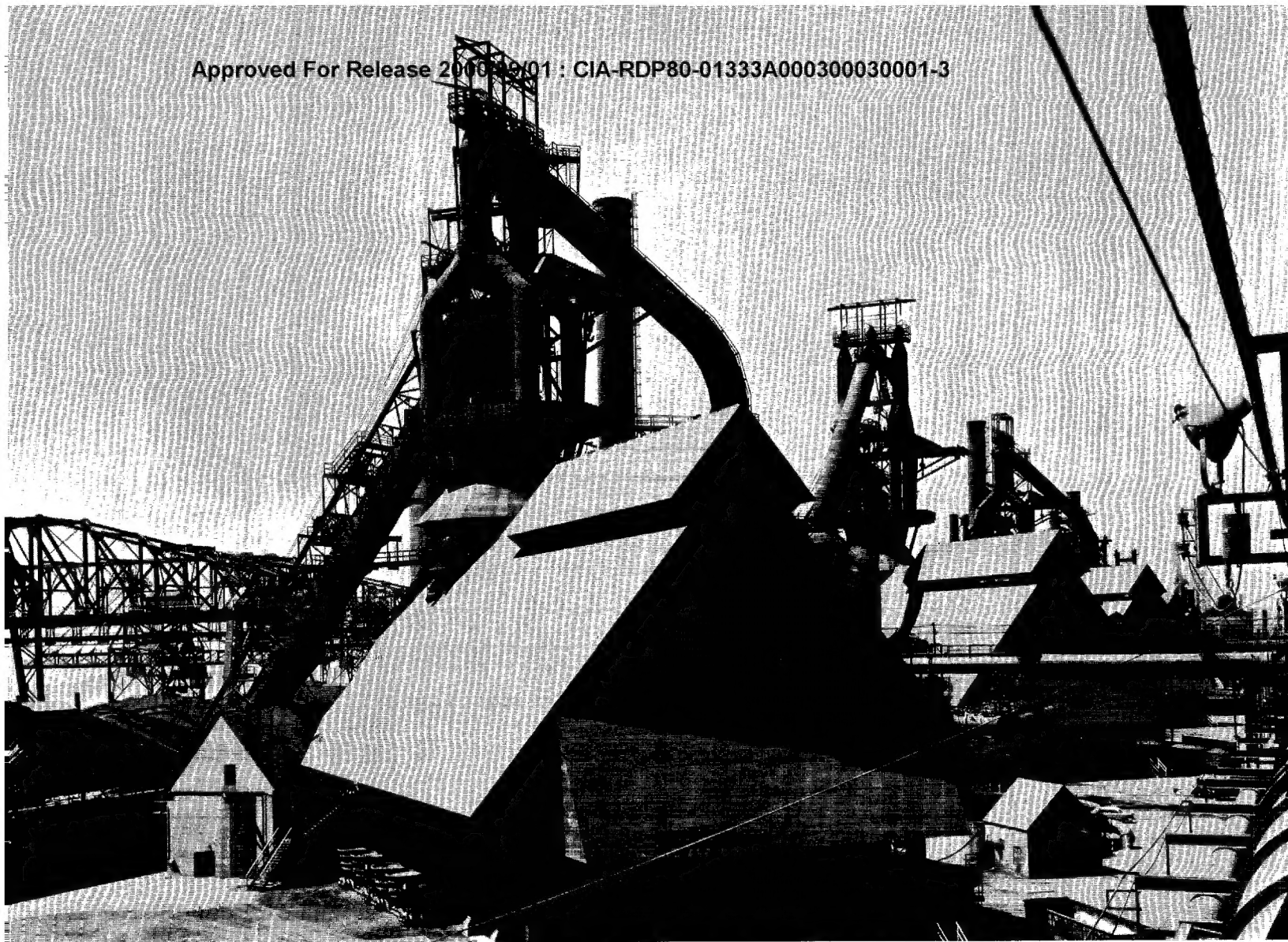
Among the chief consumers of Sparrows Point pipe are the heating, refrigeration, air-conditioning, petroleum, gas, and construction industries, in addition to the plumbing trade.

Wire, one of the most versatile of all steel products, is produced at this plant for manufacturers of furniture, fencing, nails and other fasteners, chains and bale ties, as well as countless other items for household, farm, and industrial use.

Vast Tonnages of Raw Materials Used

Raw materials are the lifeblood of a steel plant, and their handling and storage constitute a major phase of Sparrows Point operations.

About 4,000,000 tons of ore can be stored here at one time. These ores are received principally from South America and Labrador.



Some of the plant's ten blast furnaces, with the newest—Blast Furnace "K"—in the foreground.

Coal storage capacity is available for 700,000 tons. This coal comes by rail, or by rail and water, from mines in Pennsylvania, Kentucky, and West Virginia. Normal operations require about 5,500,000 tons of coal per year.

Limestone is received by rail, principally from quarries in Pennsylvania and West Virginia.

Substantial quantities of steel scrap come from the Patapsco Scrap Corporation's plant where ships, old machinery and other equipment are broken up and sorted for remelting.

Excellent Transportation

The availability of ocean transportation to supplement railroads and highways, together with the proximity of Eastern markets, are advantages that have greatly contributed to the growth of Sparrows Point. Ships bringing in the plant's supplies of iron ore dock and

unload their cargoes almost in the shadows of the blast furnaces; ships transport sheets, tinplate, wire, pipe and other Sparrows Point products directly from the plant docks to coastal and overseas markets.

Inland shipments to steel consuming points are made by rail and highway.

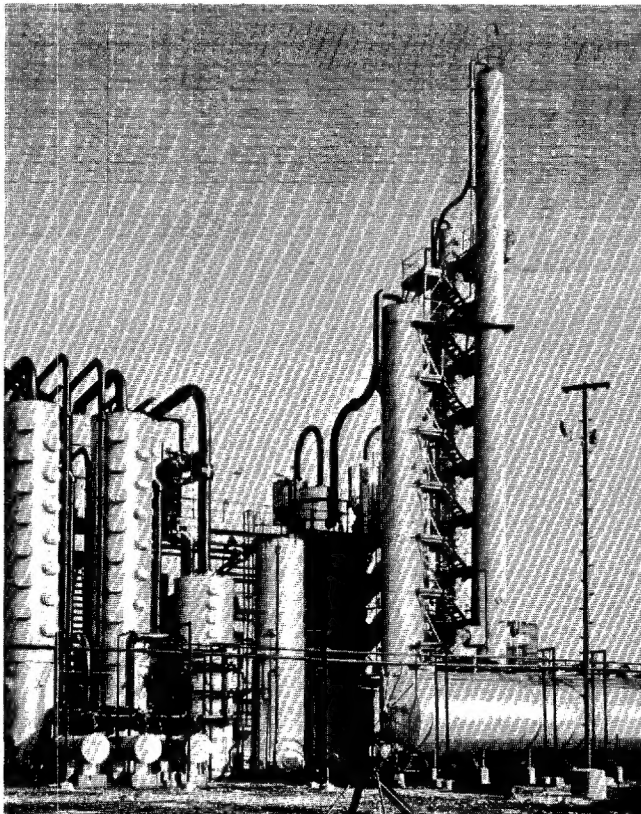
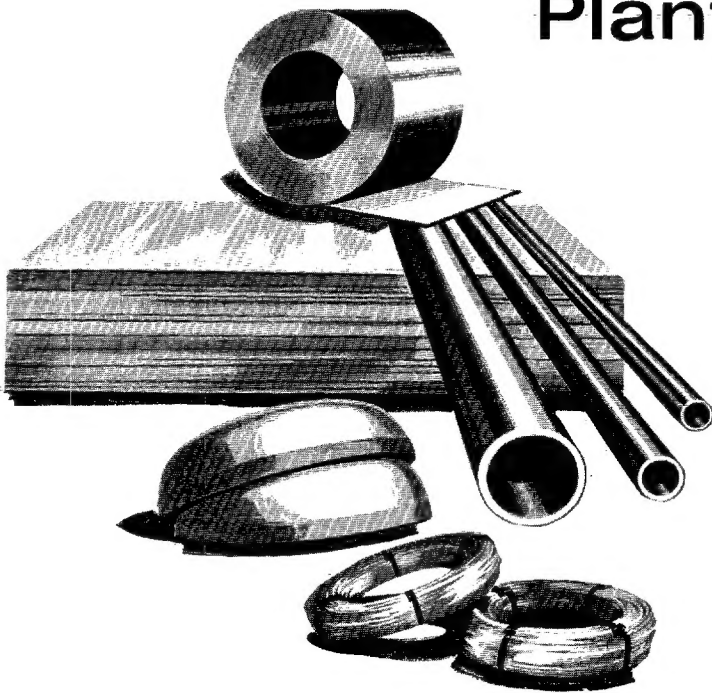
By-Products for Other Industries

Besides steel, an important phase of Sparrows Point's business is its output of coal chemicals.

Coal chemicals, recovered during the coke-making process, are sold to other manufacturers who use them in such products as plastics, dyes, synthetic fabrics, and drugs.

Blast-furnace slag is sold to manufacturers of mineral-wool insulating products, road materials, concrete, and other building materials.

What Sparrows Point Plant makes



Toluol, one of the many coal chemicals produced during the coke-making process, is recovered in this plant for use by other industries.

Plates: Sheared and Universal.

Heads: Flanged and Dished, and Pressed-Plate Products.

Pipe: Butt-weld and Electric-Resistance-weld, Black and Galvanized. Structural Fence Pipe.

Concrete Reinforcing Bars: Plain and Fabricated.

Wire Rods: Low, Medium, and High Carbon.

Merchant Wire: Annealed and Galvanized Fence and Stone Wire; Barbless Wire and Clothesline.

Manufacturer's Wire: Bright, Annealed, Galvanized, Bethanized, Coarse; Low, Medium, and High-Carbon Steel.

Barbed Wire: Galvanized, 2-point, 4-point.

Nails and Staples: Bright, Galvanized. Cement Coated, Blued, Hardened. Ring-shank, Screw-shank, Square-shank.

Bale Ties: Special-annealed.

Wire Strand: Bethanized, 3-wire, 7-wire, 19-wire. Cable and stress-relieved strand for prestressed concrete.

Sheets: Hot-rolled, Cold-rolled.

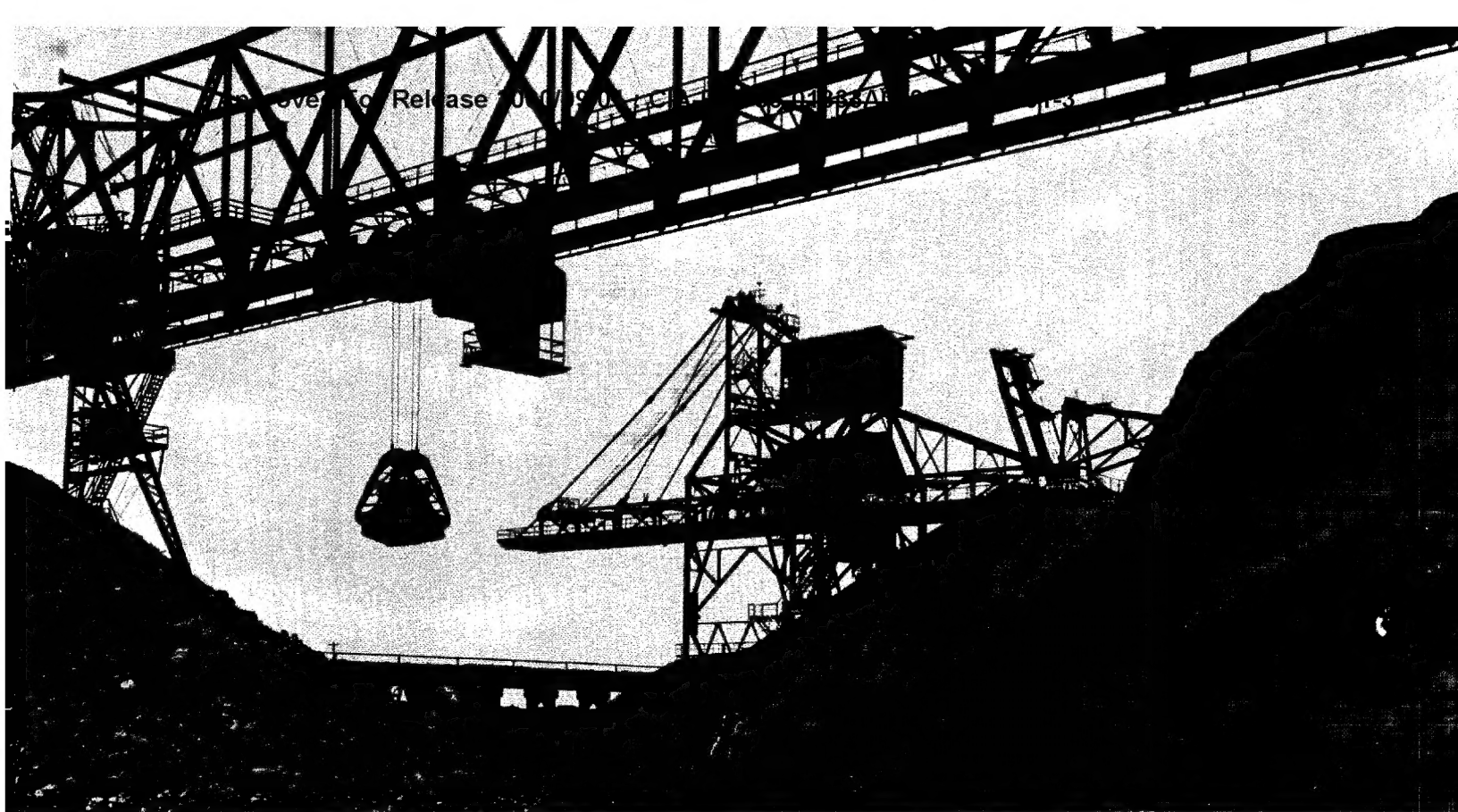
Galvanized Sheets: Flat, Formed Roofing and Siding; Culvert.

Enameling Sheets

Tinplate: Electrolytic and Hot-dipped.

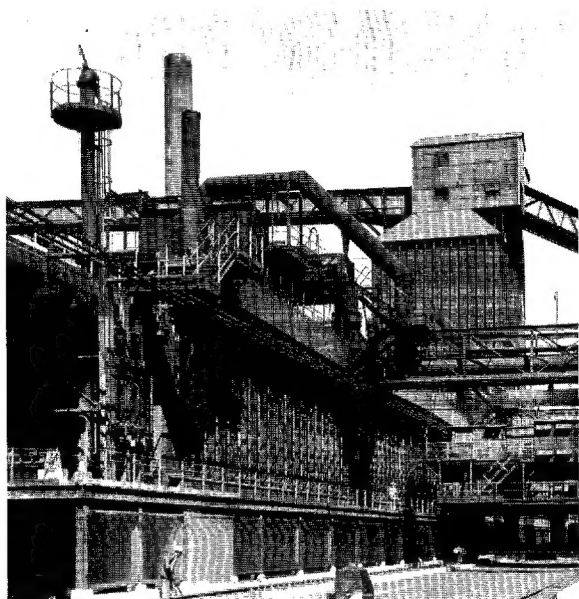
Blackplate

Coal Chemicals: Tar, Ammonium Sulphate, Benzol, Toluol, Xylol, Crude Naphthalene, Crude Pyridine, and other Chemicals.



Part of the unloading and storage facilities for iron ore at Sparrows Point. Clamshell buckets operated from the large movable ore bridges pick up the ore from the holds of incoming ocean vessels and deposit it onshore in huge stock piles.

Raw materials of steelmaking



Coal is converted into coke in the plant's 758 coke ovens.

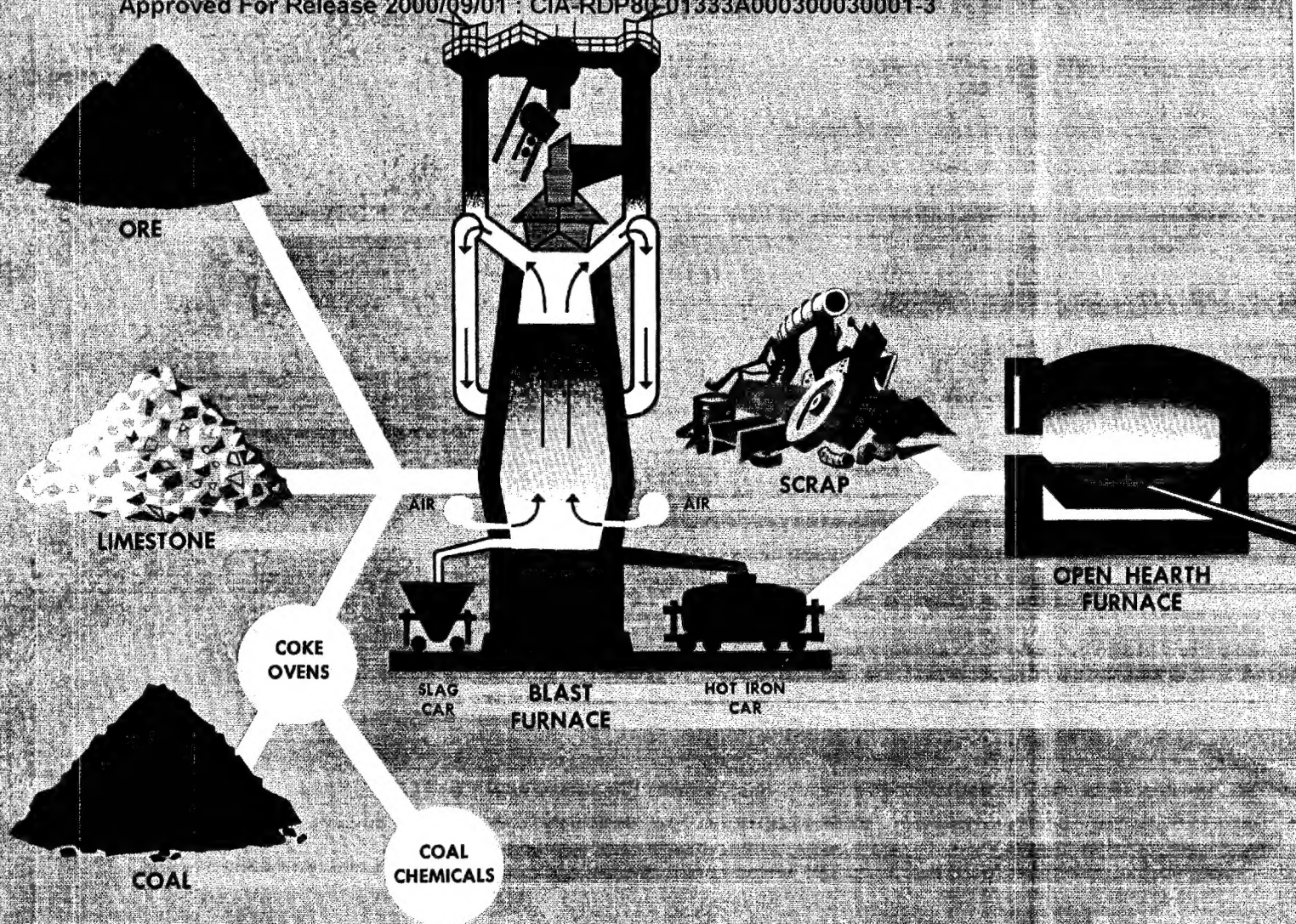
The principal raw materials entering into the steelmaking process are iron ore, coal, limestone, and scrap steel, in addition to air and water.

The iron ore, brought to Sparrows Point by ocean-going ships, is unloaded and stored in huge piles. As needed, the different grades are blended in proper proportions and fed to the blast furnaces.

Limestone, stored adjacent to the ore, has been crushed and screened to suitable size. Received from nearby quarries, the stone serves as a flux in making iron and steel.

Bituminous coal is crushed, blended, and converted into coke for use in the blast furnaces by baking in coke ovens for 18 hours or longer.

Scrap steel is broken or cut into usable lengths, tested for alloy content, and segregated by grades, for use in the open-hearth furnaces.



Ore . . . to iron . . . to

WHAT IT TAKES TO MAKE 1 INGOT-TON OF STEEL

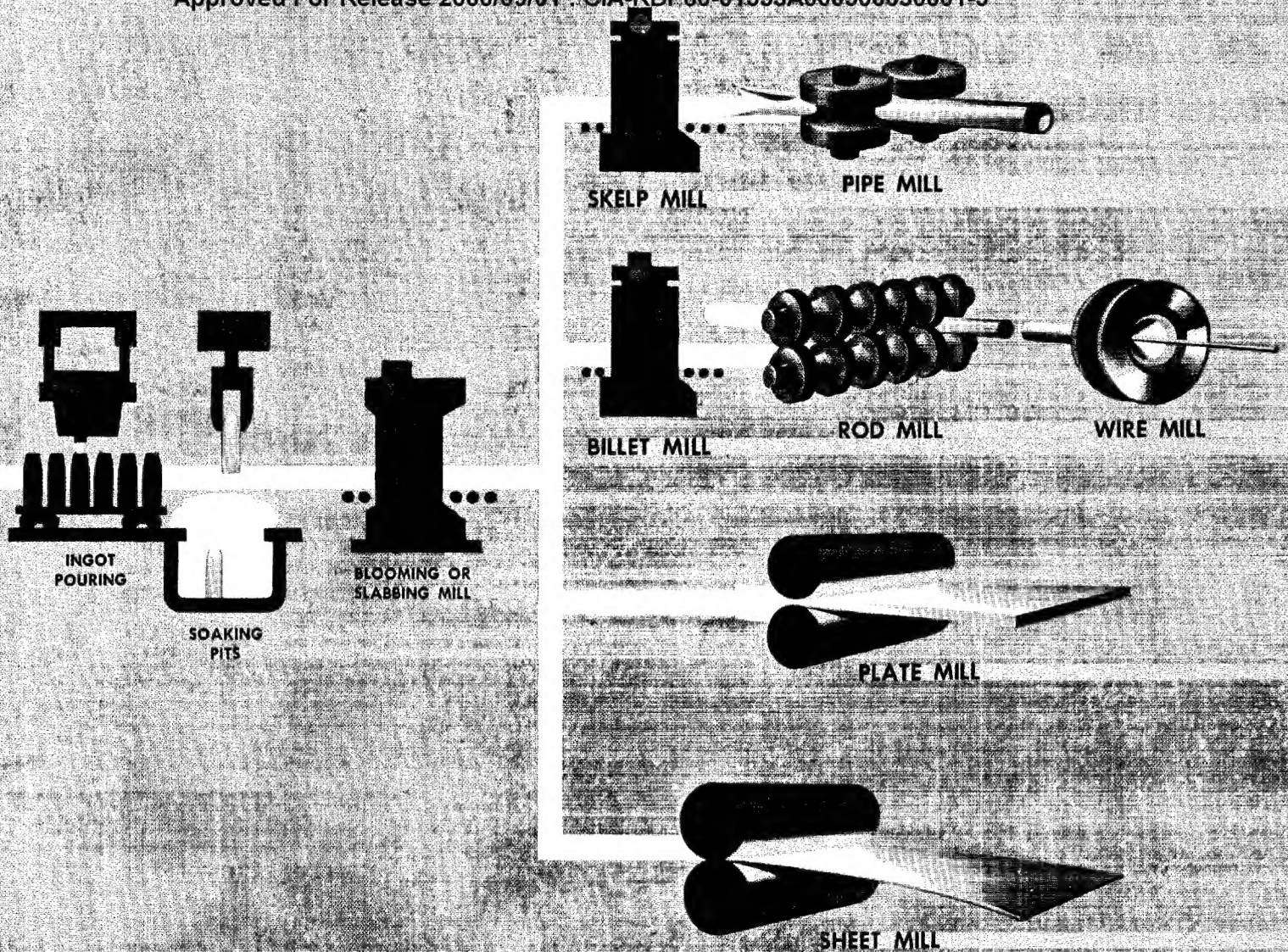
1 1/5 tons of Iron Ore
2/3 ton of Coal
1/5 ton of Limestone
1/3 ton of Scrap Steel
8 tons of Air
157 tons of Water

PIG IRON for steelmaking is produced in the blast furnace. Iron ore, coke, and limestone are fed into the furnace and subjected to pre-heated air. As the coke burns, gases are formed that reduce the iron ore to metallic iron. Lime from the limestone combines with the impurities and forms slag. There are ten large blast furnaces at the Sparrows Point Plant.

OPEN-HEARTH FURNACES produce all steel at Sparrows Point. An open-hearth furnace is charged principally with molten pig iron from the blast furnace, and cold ferrous scrap. Flames from the combustion of oil, tar, or gas and pre-heated air sweep down across the shallow hearth to melt the charge and to provide necessary heat for refining the steel. Sparrows Point Plant has 35 open-hearth furnaces.

AFTER TAPPING of the open-hearth furnaces, the molten steel is poured into ingot molds made of cast iron.

INGOTS are stripped from the molds and reheated in furnaces



finished steel

called soaking pits. Here heat is applied until the ingots are of uniform temperature throughout, ready for rolling.

THE BLOOMING OR SLABBING MILL is the first mill through which the ingots pass. Consisting of large reversing rolls, this mill rolls the ingots down to blooms or slabs for further processing in other mills.

BLOOMS go to the billet mills where they are elongated and reduced in cross section. Some of the resulting billets are then rolled to reinforcing bars and rods on continuous rod mills. Other billets are rolled into long strips on continuous skelp mills for further processing into pipe.

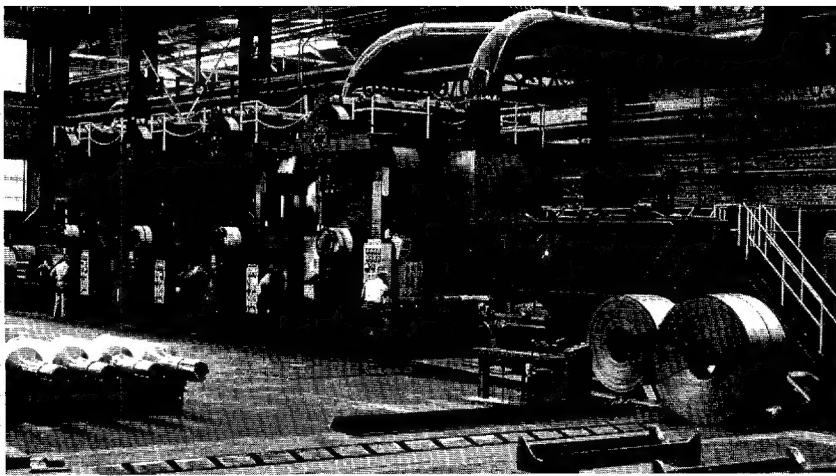
BUTT-WELD PIPE, up to and including 4 in., is made from skelp, which is fed automatically into the continuous pipe mills where it is heated to proper temperature, then shaped by a series of forming rolls and welded by the action of welding rolls. Larger pipe, up to 16 in. diameter, is formed and electrically welded from skelp on a new pipe mill which is the most modern of its type.

WIRE is made from coiled rod produced on high-speed, continuous rod mills. The rod is drawn through a series of dies of gradually diminishing size, to produce wire of the required gage. Some wire is furnished plain and some is zinc-coated, either by the hot-dip method or the bethanizing (electrolytic) process.

PLATES are rolled from slabs on large dual-stand reversible mills. Heated slabs are passed back and forth between the rolls until they are reduced to the proper thickness. Some plates are then sheared to width, and others are rolled to width by means of vertical rolls.

SHEETS are rolled from slabs on high-speed, continuous mills. After hot-rolling, some of this material is further reduced by cold-rolling, and then annealed and finally skin-passed in still another cold mill to improve the surface properties.

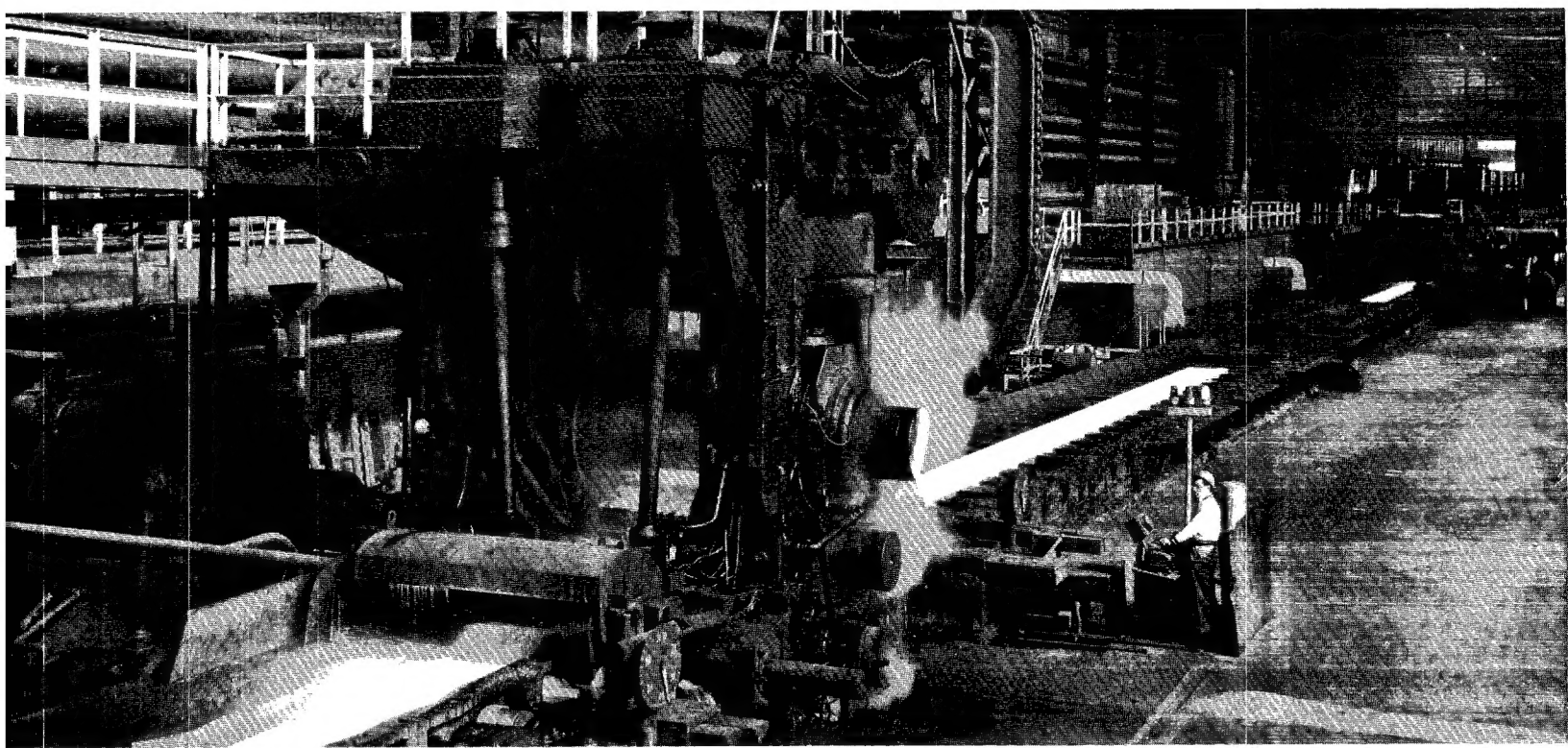
TINPLATE is made by coating the cold-reduced product with tin, either by hot-dipping or by the electrolytic process. Blackplate, another product, is similar to tinplate but without the coating.



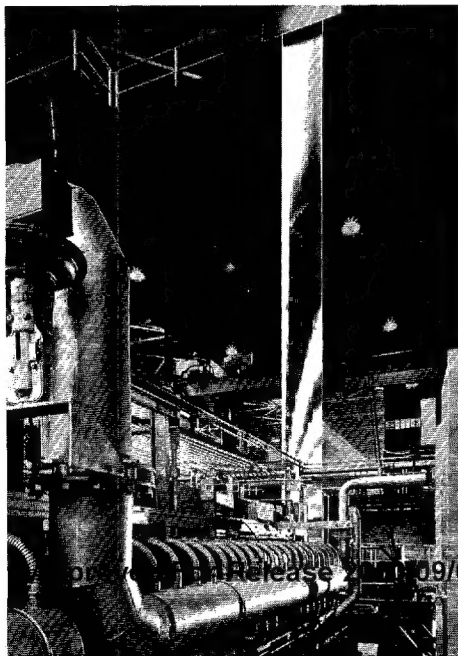
00030001-3

Sheets

Four-stand, 66-inch mill where steel previously hot-rolled is further reduced in thickness by cold-rolling. Strip passes through this mill at speeds up to 3000 feet per minute. After the steel is rolled here it is annealed, cooled, skin-passed, and sheared to size.

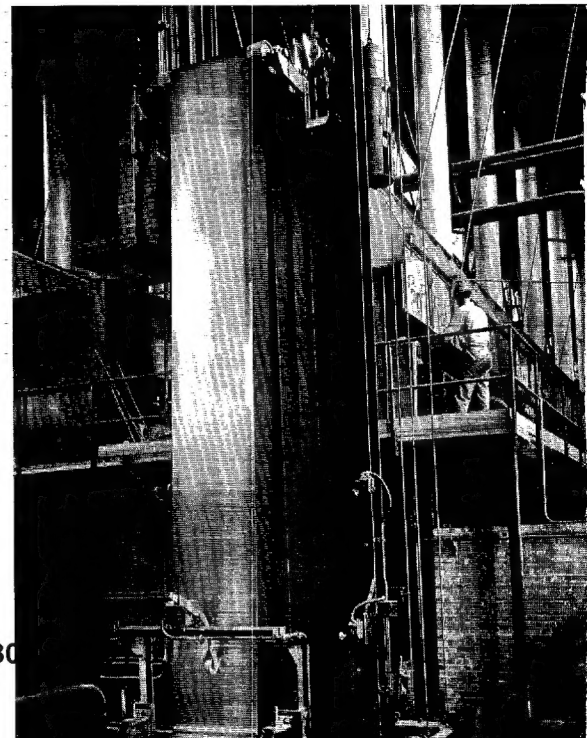


Hot-rolled sheet steel whisks through the final stand of the continuous hot mill.



The cooling tower on the finishing end of the continuous galvanizing line at the Sparrows Point Plant. Coils of sheet steel, welded end to end, form a continuous strip that passes through this automatic galvanizing equipment where it is zinc-coated.

Looping tower takes up the slack in the continuous tinplate line to allow time for welding strips together prior to electrolytic coating. Tin applied by electrolytic process is uniform along entire length and on both surfaces of the coil.



and tinplate for cars and cans

Hot-rolled sheets are made at Sparrows Point on modern, high-speed continuous mills that finish the products in one continuous passage through the roll stands. This steel is used in such applications as automobile frames, oil drums, tanks, railway cars, radio and television receivers, galvanized products, and a wide variety of industrial items.

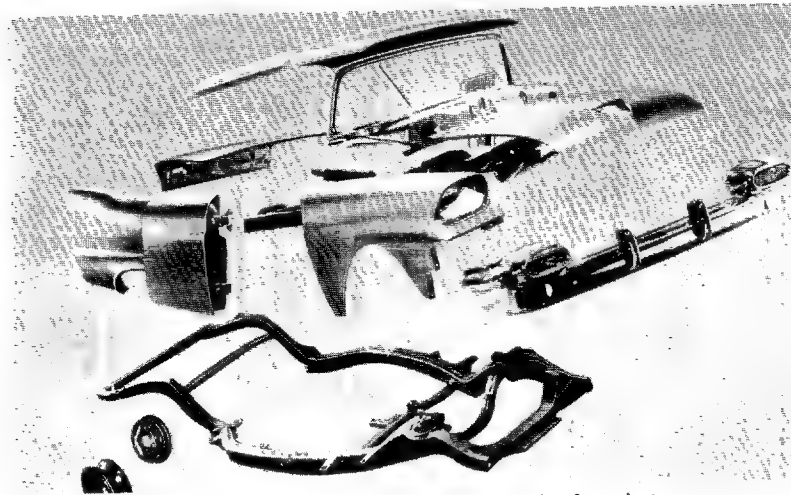
Cold-rolled sheets are produced on tandem mills that are fed with coils previously rolled on the hot mills. Refrigerators, washing machines, ranges, tubs, automobile bodies, furniture, filing cabinets, roofing, and many other items are made from this steel.

Steel for the tin-mill products is made in a similar manner to cold-rolled sheets, except that it is rolled to thinner gages. This steel may be coated with tin either by hot-dipping, or by the electrolytic process; or may be provided as blackplate without the tin coating. While the container industry uses by far the major part of tin-mill products, substantial tonnages are also used in the manufacture of kitchen utensils, bottle caps, toys, venetian blinds, oil filters, and many other miscellaneous items.

Sheet and tin-mill products made at Sparrows Point are carefully checked at each stage of production to insure uniformity of chemical analysis, gage, surface, and mechanical properties, as well as weight and quality of coating.



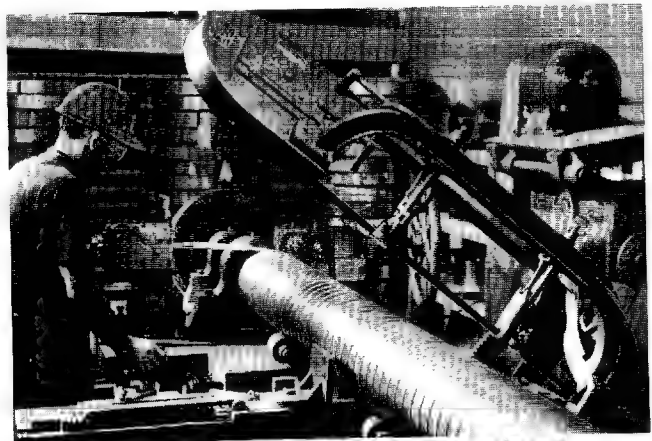
Tin-mill products from Sparrows Point go into the manufacture of cans, containers, closures, caps.



This unusual "exploded" view graphically illustrates the fact that 70 per cent of the modern automobile is sheet steel.



Another tin-mill product, blackplate, is extensively used in the manufacture of steel venetian blinds.



Galvanized steel sheets are used for ductwork, roofing and siding, and many other products. Here, a ribbon of galvanized sheet is being formed into spiral pipe.



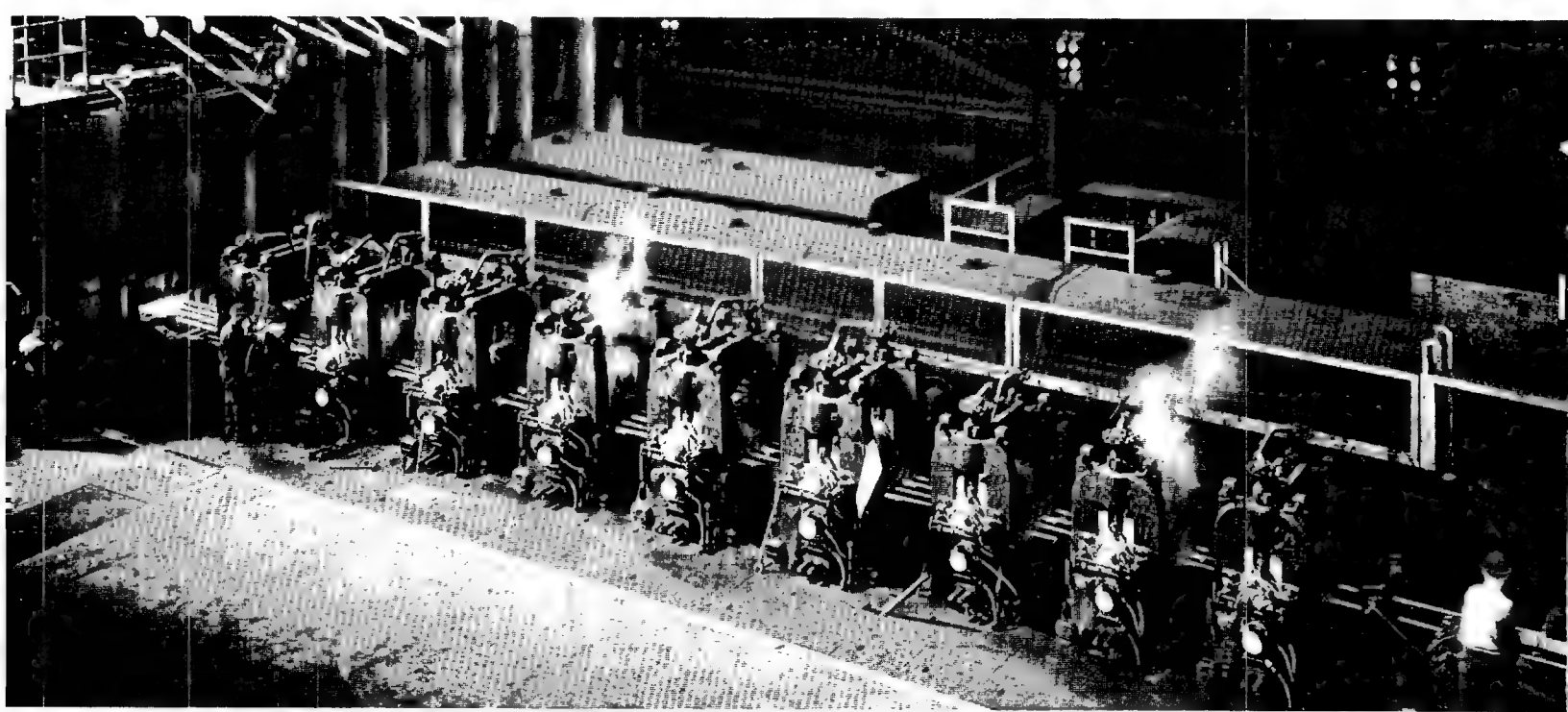
Facts about the Sparrows Point Plant



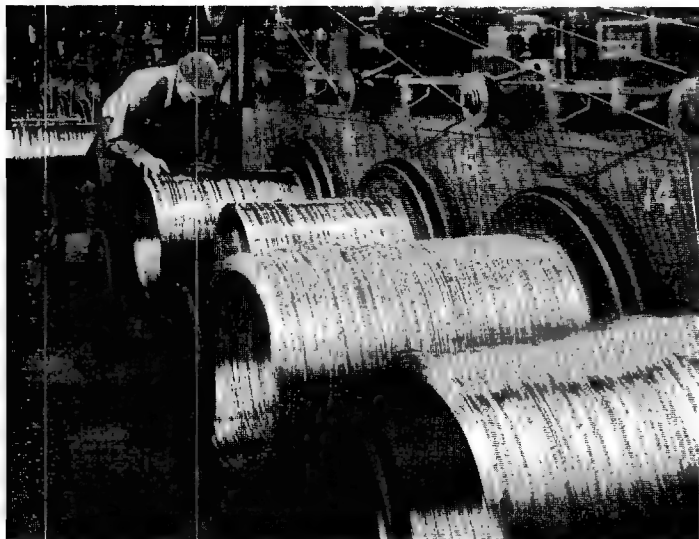
Its annual steelmaking capacity is now 8,200,000 tons, or nearly 16 tons every minute. It has a normal force of 30,000 employees. The annual payroll is about \$190,000,000. Daily rates of water consumption are 100 million gallons of industrial water, 15 million gallons of fresh water, 540 million gallons of salt water. The plant's 20,000 electric motors total more than 800,000 horsepower. About 15,000

tons of coal are used daily, enough to heat 2,000 Baltimore homes for a year. Coal and limestone are received largely by rail. Ore is brought to plant docks by a fleet of company-owned ore-carrying ships, and by chartered vessels. Some 150,000 gallons of paint and 30,000 gallons of mastic material are used every year to protect the plant's 758 buildings, as well as machinery and other facilities.

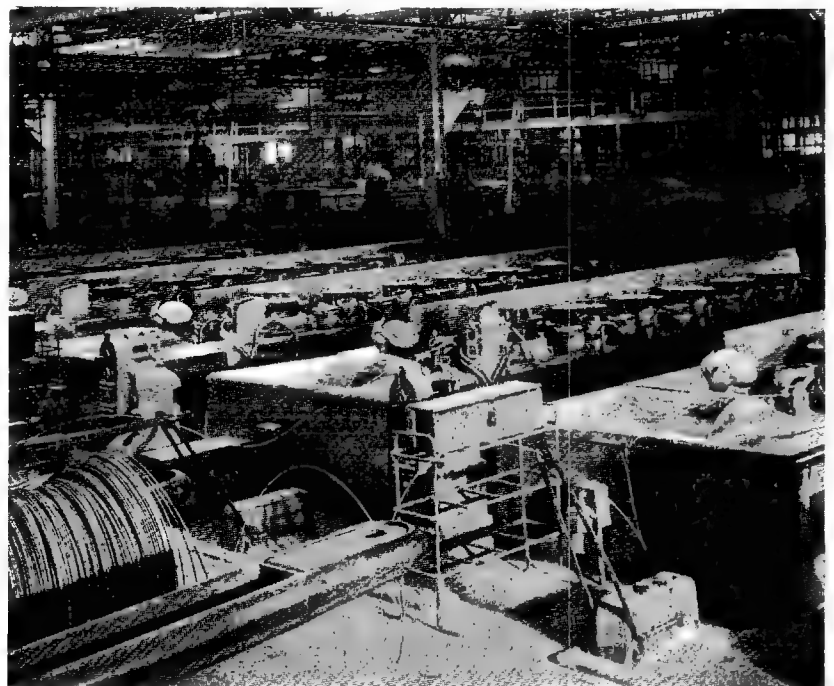
Wire by the thousands of



This four-strand mill rolls hot billets into rods for wire drawing. This mill also rolls bars used in reinforced-concrete construction.



Finished bethanized wire from the electrolytic zinc-coating units is coiled at high speeds.



Continuous wire-drawing machines draw endless coils of cold steel rod through hardened dies of gradually diminishing sizes.

miles made to order for industry

It is almost impossible to mention an industry that does not use steel wire for some purpose. There are more than 150,000 different items manufactured from steel wire. Wire made at Sparrows Point goes into such diverse products as upholstery springs, mechanical springs, nails, staples, bolts, screws, bale ties, fence, barbed wire, kitchen gadgets, strand, and cable—to name only a few. Wire is manufactured to individual specifications, depending entirely on the end use. It is literally tailor-made as to grade of steel, size, shape, finish, and mechanical properties.

At Sparrows Point, heated billets are rolled down to rods on high-speed, continuous mills, consisting of roughing, intermediate, and finishing stands. Some of these rods are sold to the trade, but the major portion are processed into wire and wire products. Deformed steel bars in all the sizes used for reinforced-concrete construction are also rolled on these mills.

In the wire mill the coiled rod is drawn into wire through a series of dies of gradually diminishing sizes, made of very hard material, generally tungsten carbide. As cold-drawing increases the hardness of steel wire, heat-

Hundreds of different types of wire are made here to supply manufacturers who produce an unlimited variety of household and industrial items.

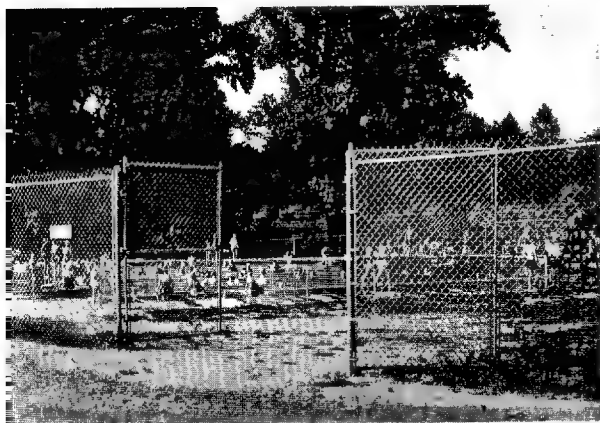


treatment is often used to soften it between successive drawing operations.

Some of the wire is galvanized by hot-dipping and some, known as bethanized wire, is given a high-purity zinc coating by an electrolytic process.

As many as 700 different types and sizes of nails alone are made on a large battery of automatic nail machines at Sparrows Point. Some of these machines are capable of cold-heading 600 nails per minute. Barbed wire, both two- and four-point types, is made on high-speed machines in another part of this mill.

Strand, made principally of bethanized wire, is also produced here. It is used as guy lines, highway guard cable, static lines, and as messenger strand in telephone systems. Stress-relieved strand is used in prestressed concrete.

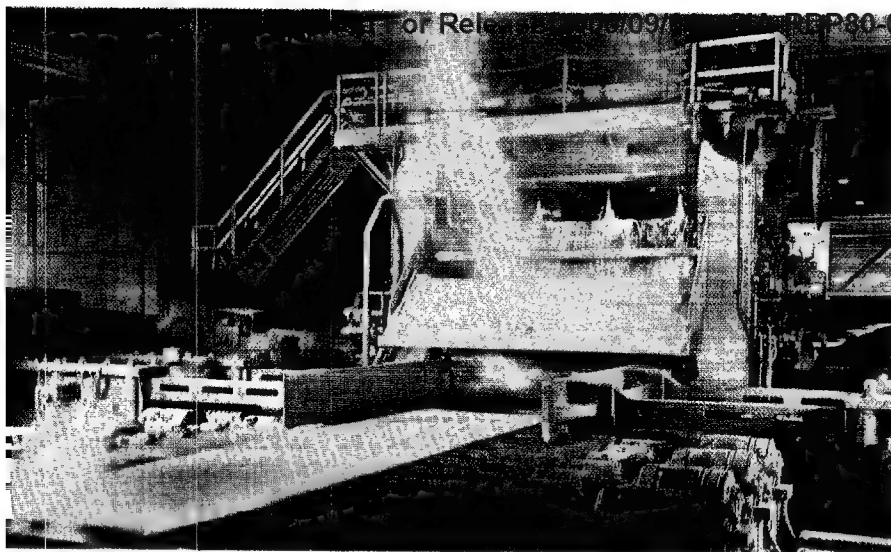


Chain-link fence, coat hangers and welding rods are among the items made from Sparrows Point wire.

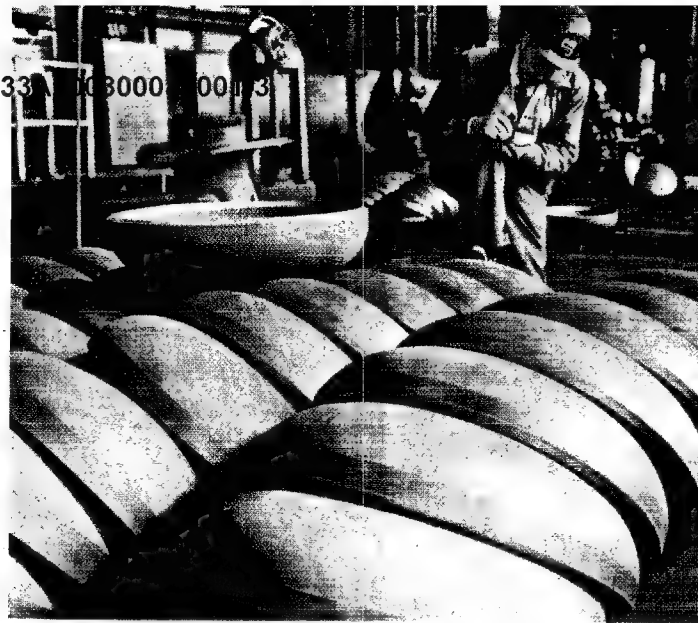
Strand for guying radio masts, ground wire for power lines, and messenger strand for phone systems contain bethanized wire.



Bed springs and upholstery springs for furniture and automobiles are made from the steel spring wire produced here.



A glowing steel plate passes through the new 160-in. sheared plate mill.



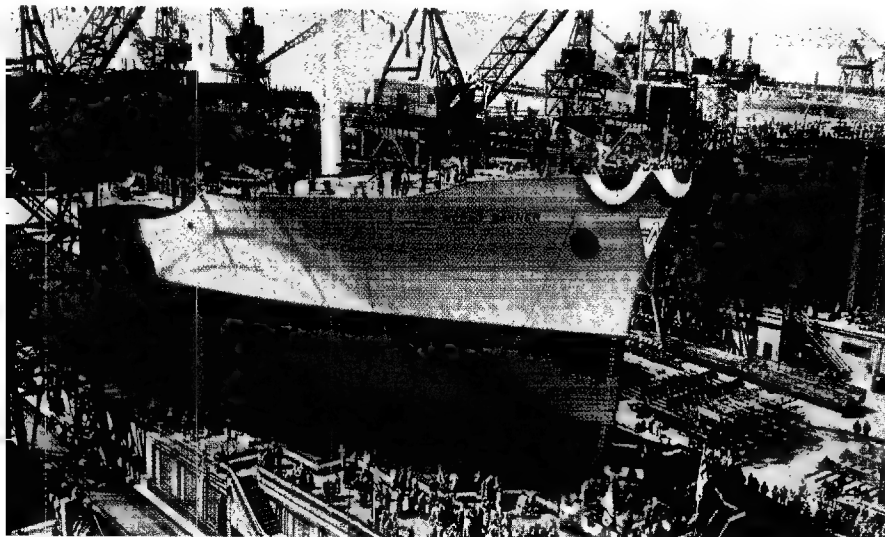
Plates are pressed or spun into dished heads.

Plates and heads for heavy industrial products

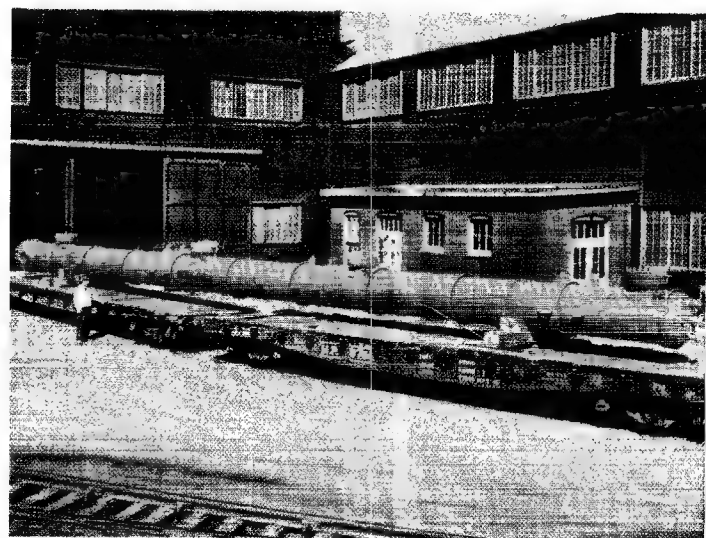
One of the principal products of the Sparrows Point Plant is steel plate, rolled principally for use in heavy industry. Large tonnages of plates go into ships, bridges, buildings, railway cars and locomotives, machinery, large pipe, tanks, and building construction. Bethlehem itself uses plates made at Sparrows Point in the fabrication of steel plate work and other industrial products, as well as in the shipyards.

The plate-rolling facilities at Sparrows Point consist of two mills. Using slabs from the blooming and slabbing mills, one of the mills produces sheared plates, while the other turns out universal plates with rolled edges.

A flanging shop is operated in connection with the plate mills. Here plates are spun or pressed into dished or flanged heads for the ends of tanks, boilers, and other closed vessels.



A 32,650-ton oil tanker being launched at Sparrows Point Shipyard. Steel plates for this vessel were made at Sparrows Point.



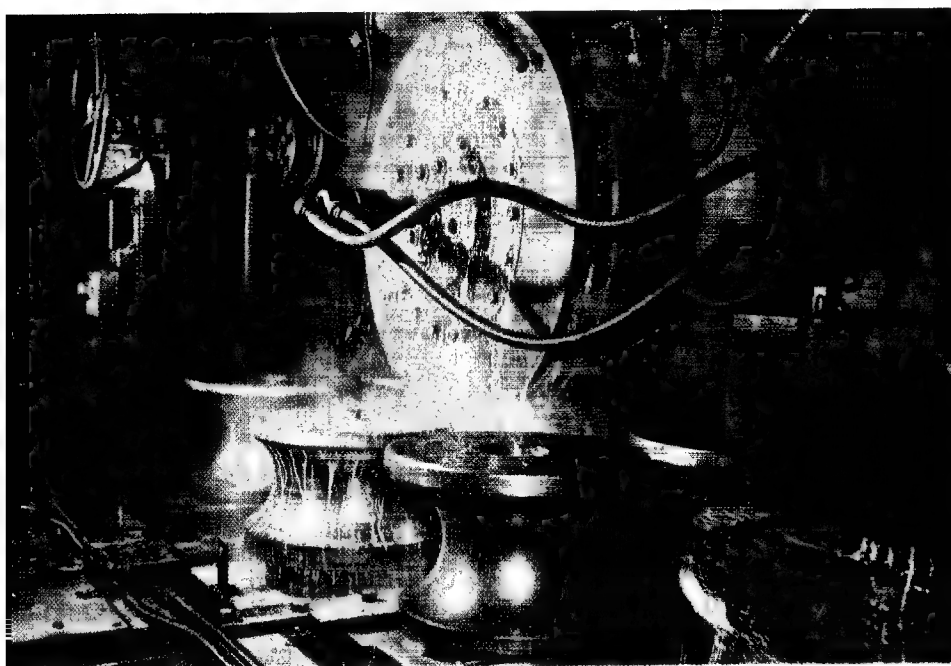
Huge de-ethanizing tower built from plates and dished heads made at Sparrows Point Plant.

Forming steel pipe for domestic and industrial uses

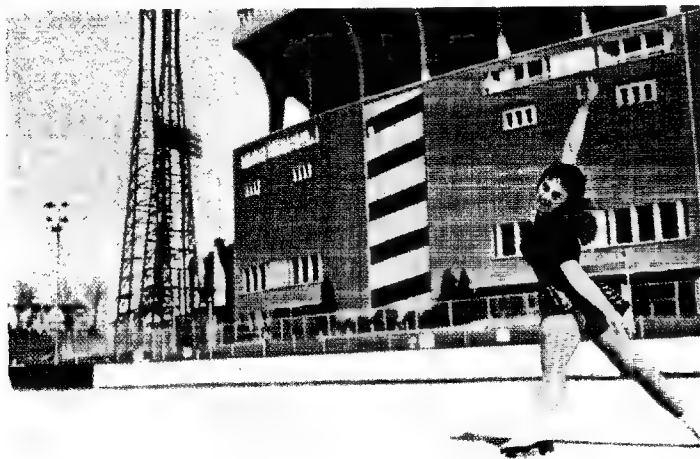
Steel pipe, another leading product of the Sparrows Point Plant, is made in approximately 750 different sizes, types, and grades. Tremendous tonnages of merchant pipe are made on modern continuous butt-weld mills that turn out pipe at speeds of 500 or more feet per minute. Much of this goes into plumbing, heating, air-conditioning, refrigeration, irrigation, railway, and general utility applications.

Larger pipe, up to 16 inches in diameter, is made on another mill using the electric-weld process. This pipe is required for water mains, steam, gas and oil lines, casing for water wells, structural columns, and various industrial uses.

Galvanizing, testing, cutting and threading facilities are available at the pipe mill. High quality of each length of finished pipe is assured by many inspections and tests.



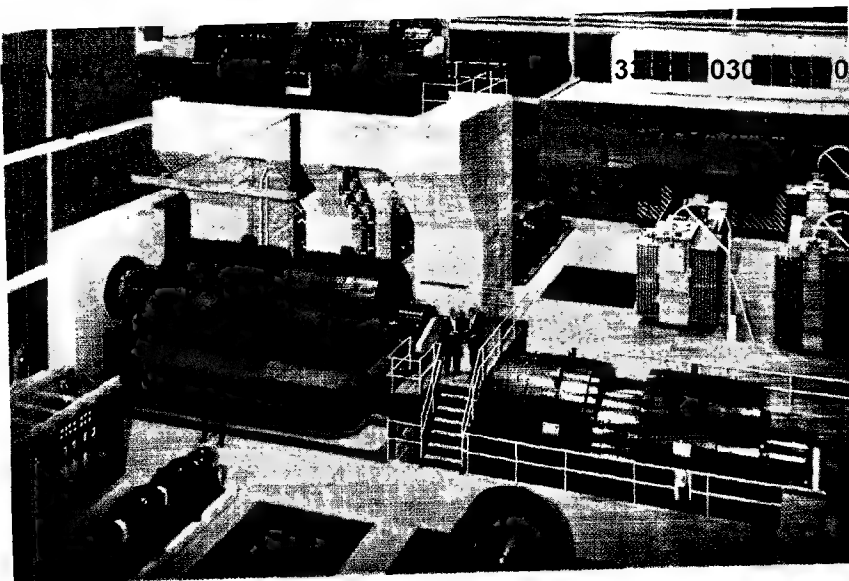
This new pipe mill forms and welds durable steel pipe from strips of rolled steel called skelp, using the electric-resistance welding method.



This Baltimore skating rink, which doubles as a parking lot in baseball and football seasons, contains thousands of feet of refrigeration pipe made at Sparrows Point.



Piping painted in identifying colors carries steam, water, and gases used in industrial plants. Pipe made at Sparrows Point is used for installations like this, as well as for radiant heating, refrigeration and plumbing systems.



Massive electric motors drive the rolls in the 45 x 90 universal slabbing mill. Large shafts driven by these motors extend through the wall to the mill in the adjacent room.

Services and utilities to serve a large city

Some 10,000 people, or approximately one out of every three Sparrows Point employees, are engaged in maintenance, service or transportation. This small army, representing several hundred different technical skills, is needed to keep a plant of this size running smoothly twenty-four hours a day.

The 758 buildings and 40 miles of paved roads in the plant, as well as all of the mechanical equipment, are kept in repair by the large maintenance forces.

Operation of the power-generating system, substations, distribution system and electrical equipment is handled jointly by the Electrical, Mechanical, and Fuel Departments. Sparrows Point consumes 1/400 of all the electric power generated in the nation.

Thousands of general-supply items are stored in warehouses and delivered throughout the plant by a large truck fleet.

The plant is served by a terminal switching line known as the Patapsco & Back Rivers Railroad. This railroad, with its 100 miles of track and 47 diesel-electric locomotives, connects the industries on its line with the Baltimore and Ohio Railroad, the Pennsylvania Railroad, and the Western Maryland Railway. 3000 railway cars operate within the plant.

Steam plant where part of the electric power is generated for Sparrows Point. Surplus blast-furnace gas, coke breeze, and fuel oil are the fuels used.



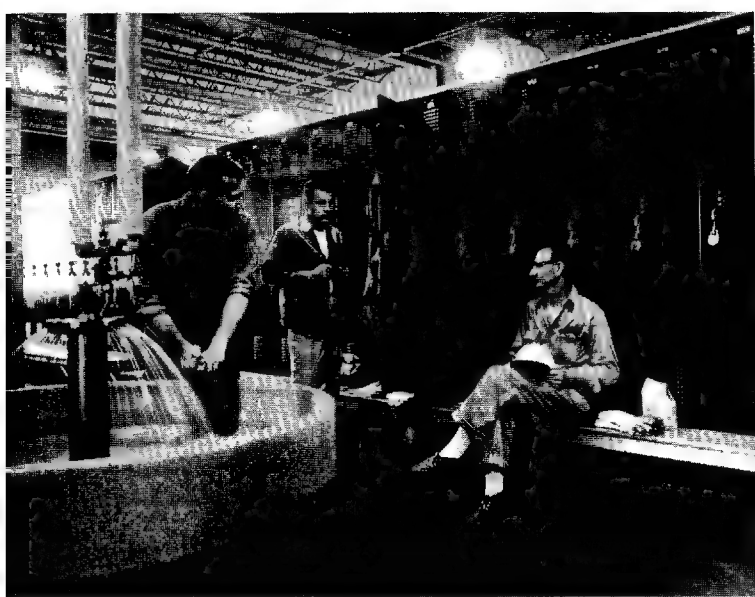
Diesel-electric locomotives supply the motive power for handling switching movements on Patapsco & Back Rivers Railroad serving the Sparrows Point area.



A fully equipped hospital and two outlying dispensaries handle minor injuries, emergency illnesses, and physical examinations.



A welfare program that never ends



Employees' welfare room with washing facilities and individual lockers for clothing storage.



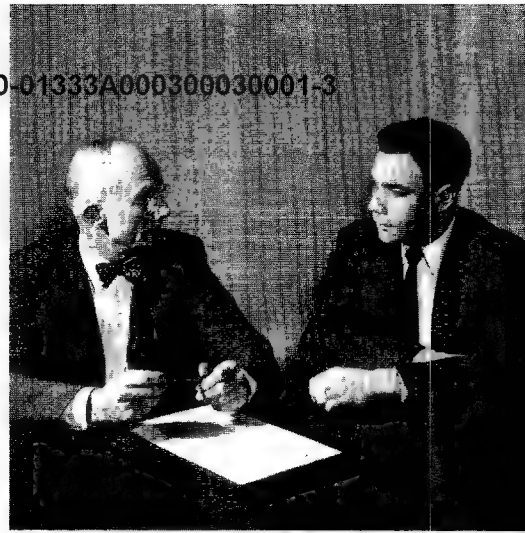
Employees learn safety measures and first aid procedures in classes conducted by technicians. These efforts have helped Sparrows Point maintain an excellent safety record.

Every effort is made to insure the safety of employees at Sparrows Point Plant. Instruction and demonstrations of safety measures are given, and working conditions are inspected constantly to help reduce possible fire or accident hazards. Atmosphere tests are made frequently to detect any contamination, such as from dust or gases, that might affect the health of employees.

The plant has a main hospital and two outlying dispensaries equipped to treat minor injuries or emergency illnesses, and to make complete physical examinations. Doctors and nurses who are trained in industrial medicine are on duty at all times. Facilities at their disposal include X-ray, electrocardiograph, clinical laboratories, operating room, and ambulances.

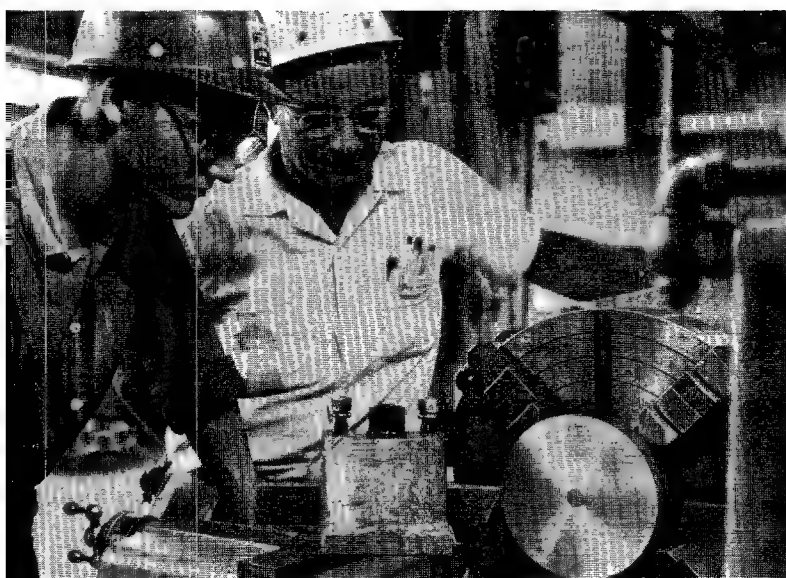
The plant Fire Department is a completely-equipped organization that protects personnel and property throughout the plant. Modern pumping trucks, cruiser cars, and fire-fighting equipment are ready for any emergency.

A uniformed Plant Patrol is on duty 24 hours a day, handling inspections and identification at the various plant entrances and providing protection for employees and property. Escort service for visitors, control of traffic, and general assistance in emergencies are some of the many responsibilities of the Plant Patrol.



New employees are interviewed by placement counselors who have had years of experience.

Better jobs through employee training



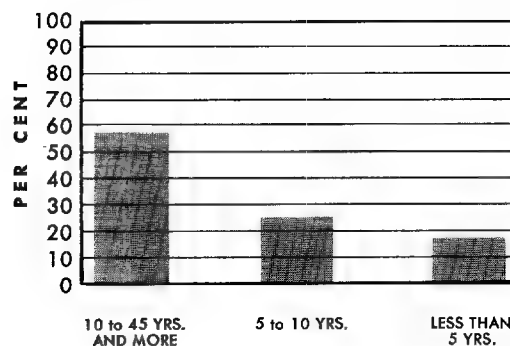
Skilled instructors supervise on-the-job technical training of employees.

The Employment Department at Sparrows Point is set up to handle individual problems of employees and prospective employees. Placement counselors interview the applicant and make every effort to place him in the most suitable job.

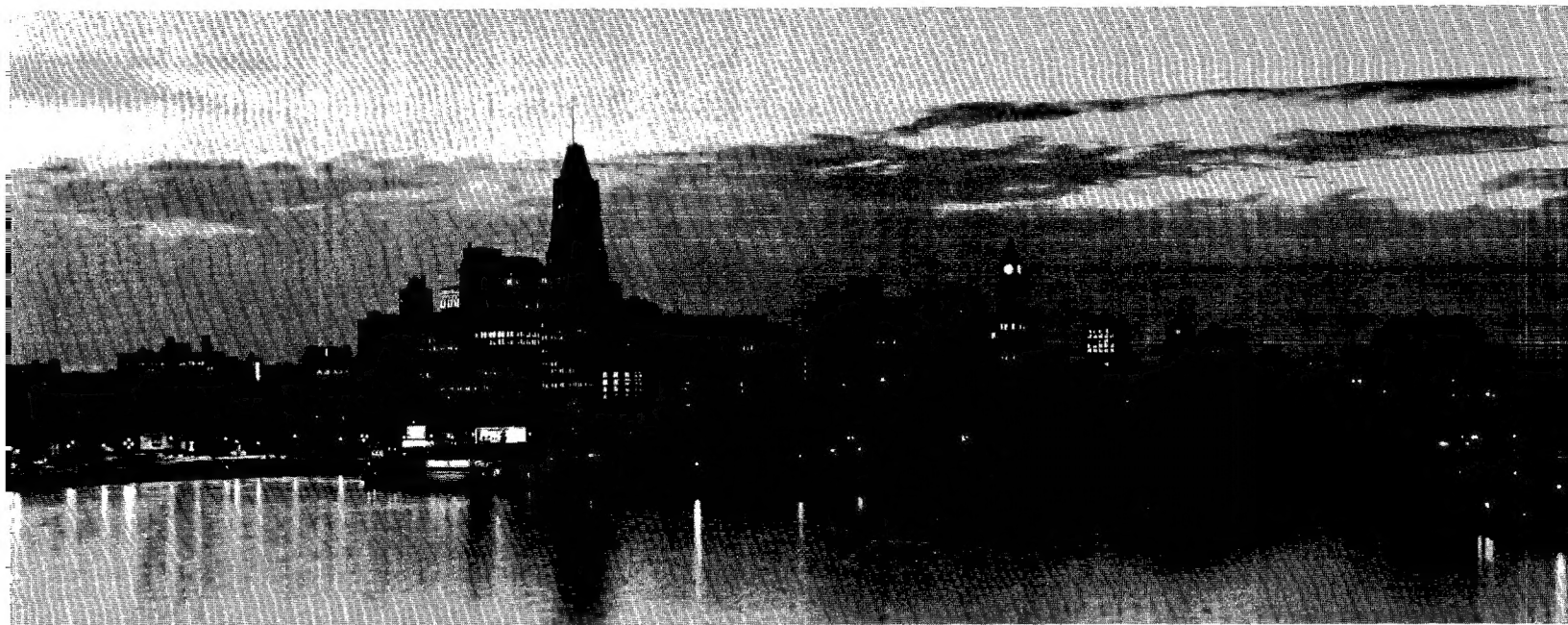
Any necessary adjustments of jobs, due to varying levels of operations, are handled on an individual basis by this department, with the assistance of the Training Department.

There are five types of formal training programs for employees conducted on a long-term basis at Sparrows Point: loop training, college graduate training (other than the loop), extension and correspondence-school training, apprentice training, and learner training. In each program the progress of the employee is carefully followed and records of achievements are kept in permanent files for future reference.

LENGTH OF SERVICE OF
SPARROWS POINT PLANT EMPLOYEES



Baltimore . . . a blend of industry, culture, good living



The city of Baltimore, sixth largest in the United States, dates back to pre-Revolutionary days, and holds a prominent place in the history and traditions of our country. As a port, it is second in size to New York, and has one of the most strategic locations on the Atlantic seaboard.



World-renowned Johns Hopkins Hospital has helped to establish Baltimore as a leading medical center.

Baltimore is one of the nation's most diversified industrial centers, the home of some 2,100 manufacturing enterprises, and a headquarters of banking, insurance, and every type of commercial activity. The labor supply is large, the local government forward-looking, and the tax structure favorable.

Beneath the commerce, industry, and shipping lies a traditional atmosphere of neighborliness and culture. Baltimore is a delightful blend of the best attributes of both North and South. Living costs are moderate, housing conditions are attractive, and the climate is pleasant.

Schools and institutions for higher education are excellent. Facilities for culture, sports, and entertainment are outstanding. Hospitals and medical centers rank among the finest in the country. Department stores and shopping centers are modern, and Baltimore's restaurants have earned for the city the title of "gastronomic metropolis of the nation."

Tradition, progressive industry, and delightful living provide the ideal combination for continued years of growth and opportunity.

Bethlehem plants, shipyards, and products

STEEL PLANTS

Bethlehem, Johnstown, Lebanon, Steelton and Williamsport, Pennsylvania; Sparrows Point, Maryland; Lackawanna, New York; South San Francisco and Los Angeles, California; Seattle, Washington.

FABRICATING WORKS

Bethlehem, Johnstown, Leetsdale, Pottstown, Rankin and Steelton, Pennsylvania; Buffalo, New York; Chicago, Illinois; Beaumont, Texas; Alameda, South San Francisco and Torrance, California; Seattle, Washington.

SHIPBUILDING AND REPAIR YARDS

Quincy and East Boston, Massachusetts; Brooklyn and Staten Island, New York; Hoboken, New Jersey; Baltimore and Sparrows Point, Maryland; Beaumont, Texas; San Francisco and Terminal Island (San Pedro), California.

OTHER MANUFACTURING UNITS

Boston, Massachusetts; Buffalo, New York; Dunellen and Elizabeth, New Jersey; Philadelphia, Pennsylvania; Baltimore and Fairfield, Maryland; Richmond, Virginia; Charlotte and Raleigh, North Carolina; Birmingham, Alabama; Hallandale, Jacksonville and Miami, Florida; Clearing, Illinois; Detroit and Romulus, Michigan; Minneapolis, Minnesota; Tulsa, Oklahoma.

STEEL PLANT PRODUCTS

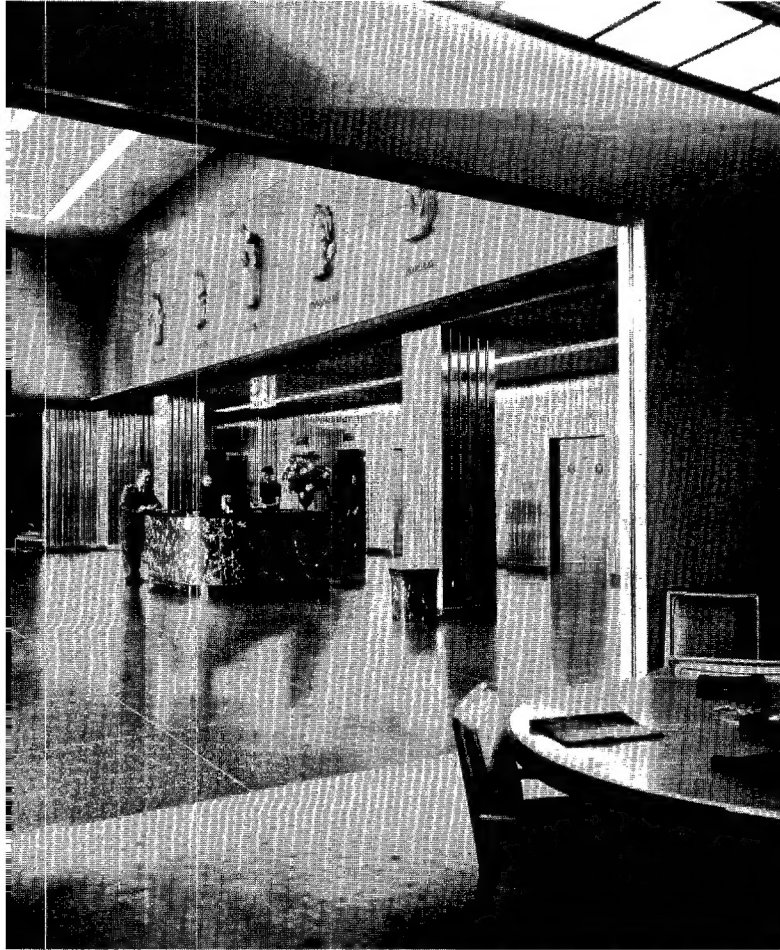
Ferro-Manganese; Blooms, Billets, Slabs, and Bars; Carbon, Alloy, and Special Steels; Coal Chemicals; Structural Shapes; Tin Mill Products; Sheets; Tool Steels; Plates; Rails; Pipe; Wire; Wire Rods; Concrete Reinforcing Bars; Steel Piling.

SHIPBUILDING AND REPAIRING

Design, Construction, and Repair of ships of all types and sizes; Marine Machinery and Equipment.

MANUFACTURED PRODUCTS

Bridges, Buildings, Towers, and Other Fabricated Structures of All Kinds; Forgings; Joists and Other Construction Specialties; Flanged and Dished Heads; Tools; Cold Formed Shapes and Blanked Specialties; Freight and Mine Cars and Car Parts; Trackwork and Accessories; Wheels and Axles for Railway and Industrial Equipment; Wire Rope, Strand, and Slings; Nails, Staples, Barbed Wire, and Bale Ties; Fence Posts; Guard Rails, Cable, Posts, and Highway Specialties; Bolts, Nuts, Rivets, Spikes, and Other Industrial Fasteners; Mine Roof Supports; Sucker Rods; Gear Blanks and Circular Forgings; Hardened Steel Rolls; Weldments; Ordnance; Steel, Iron, Brass, and Bronze Castings; Ingot Moulds and Stools; Hydraulic and Special Machinery; Tunnel Segments; Tanks and Pressure Vessels; Oil Well Producing and Refining Equipment; Fabricated Reinforcing Bars.



Lobby of Bethlehem Steel Company's general office building at Bethlehem, Pennsylvania. In foreground is one of four comfortably-appointed waiting alcoves; reception desk is in center of picture.



